Title (en)

Compost made of organic residues, process for making it and apparatus for putting the process into operation.

Title (de)

Kompost aus organischen Abfallstoffen, Verfahren zur Herstellung und Einrichtung zur Durchführung dieses Verfahrens.

Title (fr)

Compost provenant de déchets organiques, procédé pour son obtention et installation pour la mise en oeuvre du procédé.

Publication

EP 0040147 A2 19811118 (FR)

Application

EP 81400737 A 19810508

Priority

FR 8010327 A 19800508

Abstract (en)

1. Improved process for obtaining a compost from organic waste products, in which the waste products are subjected to an aerobic fermentation after having, where appropriate, modified the composition by prior additions of carbon-containing, nitrogen-containing and/or phosphorus-containing materials, the said process being characterised in that it comprises the following steps ; a) Preparation of the waste products to be treated, involving : (I) an adjustment of the C/N ratio to between 20 and 30, (II) an adjustment of the pH to between 6.8 and 7.5, preferably between 7 and 7.5, (III) a homogenisation of the mass of waste products resulting in a homogeneous mass which easily allows air to pass and (IV) an adjustment of the moisture content to between 45 and 55% by weight, preferably between 50 and 55%, b) fermentation of the said mass under static aerobic conditions, in a zone where the mass of waste products is at rest and where its moisture content is maintained at between 45 and 55% by weight, advantageously between 50 and 55% by weight, with alternate circulation of air forced upward through the mass and downward through it, so as to maintain, within the mass, conditions suitable for ensuring the mesophilic growth of the bacteria, implying fermentation temperatures of 50 to 60 degrees C, preferably between 50 and 55 degrees C, c) supplementary fermentation, of shortened duration, while continuing the alternate circulation of air, but maintaining, within the mass, conditions suitable for ensuring the thermophilic growth of bacteria and the hygienisation of the waste products being treated, which implies temperatures above 70 degrees C, the duration of steps b) and c) above being such that virtually all the oxygen demands of the microorganisms present in the mass are satisfied, and d) maturing of the mass of residues, the mass being left at rest under static conditions, without air circulation.

Abstract (fr)

Compost provenant de déchets organiques tels que des boues ou des gadoues. Le compost est mûr, il contient des nitrates et des sulfates, sont rapport C/N est compris entre 20 et 30. Le procédé consiste à disposer les déchets dans des cellules de fermentation dans des conditions statiques, la fermentation étant réalisée en deux étapes, l'une pour assurer la croissance mésophile et l'autre la croissance thermophile des bactéries, avec une circulation alternée d'air de haut en bas et de bas en haut à travers la masse. Le compost est ensuite mûri. On obtient ainsi un compost servant de terreau.

IPC 1-7

C05F 7/00

IPC 8 full level

C05F 7/00 (2006.01); **C05F 9/04** (2006.01); **C05F 17/00** (2006.01); **C05F 17/02** (2006.01)

CPC (source: EP)

C05F 9/04 (2013.01); **C05F 17/00** (2013.01); **C05F 17/964** (2020.01); Y02A 40/20 (2017.12); Y02P 20/145 (2015.11); Y02W 30/40 (2015.05)

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FR2819504A1; FR2653688A1; FR2539736A1; EP1350778A1; FR2837814A1; ES2151845A1; EP0458136A3; EP0606119A3; US5702499A; EP0145874A3; EP1431262A1; FR2642825A1; EP0391753A1; EP0085000A1; FR2519972A1; WO9519329A1; WO9103441A3; WO9632361A1; WO2007056963A1; WO0246127A3

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